

Estimation of Difference of the Effect in the Analysis Methods on the Simulation Results of Tsunami Flood Depth

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In order to ensure the safety of railways against tsunami hazards, we estimated the tsunami flood depth in the model area by 2-dimensional tsunami analysis method and 3-dimensional one. In the case of using the detailed terrain model, the geometric means and the geometric deviation values respectively obtained by the 2-dimensional analysis method and 3-dimensional one were not significantly different. However there is the difference between the distribution of the maximum flooding depth by the 2-dimensional analysis and that by the 3-dimensional analysis. In the case of the tsunami source model in which the fault slip was adjusted amount to 70%, the result of 2-dimension analysis did not show any occurrence of overflowing the embankment, but the result of 3-dimension analysis showed an occurrence of overflowing the embankment.